

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 09/518,2970  
Source: IFW/6  
Date Processed by STIC: 7/7/06

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 07/07/2006

PATENT APPLICATION: US/09/518,297D

TIME: 17:17:03

Input Set : A:\54600-8130.US00-SEQLIST.TXT

Output Set: N:\CRF4\07072006\I518297D.raw

```

4 <110> APPLICANT: Lim, Moon Young
5     Edwards, Cynthia A.
6     Fry, Kirk E.
7     Bruice, Thomas W.
8     Starr, Douglas B.
9     Laurance, Megan E.
10    Kwok, Yan
13 <120> TITLE OF INVENTION: DNA Binding Compound-Mediated Molecular
14    Switch System
16 <130> FILE REFERENCE: 4600-0130.30
18 <140> CURRENT APPLICATION NUMBER: US 09/518,297D
19 <141> CURRENT FILING DATE: 2000-03-03
21 <150> PRIOR APPLICATION NUMBER: US 60/122,513
22 <151> PRIOR FILING DATE: 1999-03-03
24 <150> PRIOR APPLICATION NUMBER: US 60/154,605
25 <151> PRIOR FILING DATE: 1999-09-17
27 <160> NUMBER OF SEQ ID NOS: 77
29 <170> SOFTWARE: FastSEQ for Windows Version 4.0
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 11
33 <212> TYPE: DNA
34 <213> ORGANISM: Artificial Sequence
36 <220> FEATURE:
37 <223> OTHER INFORMATION: DNA response element
39 <400> SEQUENCE: 1
40 cgttcgact t                                     11
42 <210> SEQ ID NO: 2
43 <211> LENGTH: 17
44 <212> TYPE: DNA
45 <213> ORGANISM: Artificial Sequence
47 <220> FEATURE:
48 <223> OTHER INFORMATION: DNA response element
50 <400> SEQUENCE: 2
51 cggagtactg tcctccg                             17
53 <210> SEQ ID NO: 3
54 <211> LENGTH: 12
55 <212> TYPE: DNA
56 <213> ORGANISM: Artificial Sequence
58 <220> FEATURE:
59 <223> OTHER INFORMATION: DNA response element
W--> 61 <221> NAME/KEY: misc_feature
62 <222> LOCATION: (1)...(12)
63 <223> OTHER INFORMATION: n = A,T,C or G

```

## RAW SEQUENCE LISTING

DATE: 07/07/2006

PATENT APPLICATION: US/09/518,297D

TIME: 17:17:03

Input Set : A:\54600-8130.US00-SEQLIST.TXT

Output Set: N:\CRF4\07072006\I518297D.raw

W--&gt; 65 &lt;400&gt; 3

W--&gt; 66 taattanggg ng

12

68 &lt;210&gt; SEQ ID NO: 4

69 &lt;211&gt; LENGTH: 551

70 &lt;212&gt; TYPE: PRT

71 &lt;213&gt; ORGANISM: Homo sapiens

73 &lt;220&gt; FEATURE:

74 &lt;221&gt; NAME/KEY: VARIANT

75 &lt;222&gt; LOCATION: (0)...(0)

76 &lt;223&gt; OTHER INFORMATION: transcriptional regulatory protein

78 &lt;400&gt; SEQUENCE: 4

```

79 Met Asp Glu Leu Phe Pro Leu Ile Phe Pro Ala Glu Pro Ala Gln Ala
80 1 5 10 15
81 Ser Gly Pro Tyr Val Glu Ile Ile Glu Gln Pro Lys Gln Arg Gly Met
82 20 25 30
83 Arg Phe Arg Tyr Lys Cys Glu Gly Arg Ser Ala Gly Ser Ile Pro Gly
84 35 40 45
85 Glu Arg Ser Thr Asp Thr Thr Lys Thr His Pro Thr Ile Lys Ile Asn
86 50 55 60
87 Gly Tyr Thr Gly Pro Gly Thr Val Arg Ile Ser Leu Val Thr Lys Asp
88 65 70 75 80
89 Pro Pro His Arg Pro His Pro His Glu Leu Val Gly Lys Asp Cys Arg
90 85 90 95
91 Asp Gly Phe Tyr Glu Ala Glu Leu Cys Pro Asp Arg Cys Ile His Ser
92 100 105 110
93 Phe Gln Asn Leu Gly Ile Gln Cys Val Lys Lys Arg Asp Leu Glu Gln
94 115 120 125
95 Ala Ile Ser Gln Arg Ile Gln Thr Asn Asn Asn Pro Phe Gln Val Pro
96 130 135 140
97 Ile Glu Glu Gln Arg Gly Asp Tyr Asp Leu Asn Ala Val Arg Leu Cys
98 145 150 155 160
99 Phe Gln Val Thr Val Arg Asp Pro Ser Gly Arg Pro Leu Arg Leu Pro
100 165 170 175
101 Pro Val Leu Pro His Pro Ile Phe Asp Asn Arg Ala Pro Asn Thr Ala
102 180 185 190
103 Glu Leu Lys Ile Cys Arg Val Asn Arg Asn Ser Gly Ser Cys Leu Gly
104 195 200 205
105 Gly Asp Glu Ile Phe Leu Leu Cys Asp Lys Val Gln Lys Glu Asp Ile
106 210 215 220
107 Glu Val Tyr Phe Thr Gly Pro Gly Trp Glu Ala Arg Gly Ser Phe Ser
108 225 230 235 240
109 Gln Ala Asp Val His Arg Gln Val Ala Ile Val Phe Arg Thr Pro Pro
110 245 250 255
111 Tyr Ala Asp Pro Ser Leu Gln Ala Pro Val Arg Val Ser Met Gln Leu
112 260 265 270
113 Arg Arg Pro Ser Asp Arg Glu Leu Ser Glu Pro Met Glu Phe Gln Tyr
114 275 280 285
115 Leu Pro Asp Thr Asp Asp Arg His Arg Ile Glu Glu Lys Arg Lys Arg
116 290 295 300

```

## RAW SEQUENCE LISTING

DATE: 07/07/2006

PATENT APPLICATION: US/09/518,297D

TIME: 17:17:03

Input Set : A:\54600-8130.US00-SEQLIST.TXT

Output Set: N:\CRF4\07072006\I518297D.raw

```

117 Thr Tyr Glu Thr Phe Lys Ser Ile Met Lys Lys Ser Pro Phe Ser Gly
118 305 310 315 320
119 Pro Thr Asp Pro Arg Pro Pro Pro Arg Arg Ile Ala Val Pro Ser Arg
120 325 330 335
121 Ser Ser Ala Ser Val Pro Lys Pro Ala Pro Gln Pro Tyr Pro Phe Thr
122 340 345 350
123 Ser Ser Leu Ser Thr Ile Asn Tyr Asp Glu Phe Pro Thr Met Val Phe
124 355 360 365
125 Pro Ser Gly Gln Ile Ser Gln Ala Ser Ala Leu Ala Pro Ala Pro Pro
126 370 375 380
127 Gln Val Leu Pro Gln Ala Pro Ala Pro Ala Pro Ala Pro Ala Met Val
128 385 390 395 400
129 Ser Ala Leu Ala Gln Ala Pro Ala Pro Val Pro Val Leu Ala Pro Gly
130 405 410 415
131 Pro Pro Gln Ala Val Ala Pro Pro Ala Pro Lys Pro Thr Gln Ala Gly
132 420 425 430
133 Glu Gly Thr Leu Ser Glu Ala Leu Leu Gln Leu Gln Phe Asp Asp Glu
134 435 440 445
135 Asp Leu Gly Ala Leu Leu Gly Asn Ser Thr Asp Pro Ala Val Phe Thr
136 450 455 460
137 Asp Leu Ala Ser Val Asp Asn Ser Glu Phe Gln Gln Leu Leu Asn Gln
138 465 470 475 480
139 Gly Ile Pro Val Ala Pro His Thr Thr Glu Pro Met Leu Met Glu Tyr
140 485 490 495
141 Pro Glu Ala Ile Thr Arg Leu Val Thr Gly Ala Gln Arg Pro Pro Asp
142 500 505 510
143 Pro Ala Pro Ala Pro Leu Gly Ala Pro Gly Leu Pro Asn Gly Leu Leu
144 515 520 525
145 Ser Gly Asp Glu Asp Phe Ser Ser Ile Ala Asp Met Asp Phe Ser Ala
146 530 535 540
147 Leu Leu Ser Gln Ile Ser Ser
148 545 550
150 <210> SEQ ID NO: 5
151 <211> LENGTH: 19
152 <212> TYPE: DNA
153 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: DNA response element
158 <400> SEQUENCE: 5
159 tccctatcag tgatagaga 19
161 <210> SEQ ID NO: 6
162 <211> LENGTH: 22
163 <212> TYPE: DNA
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: response element
169 <400> SEQUENCE: 6
170 cttaacactc gcgagtgtta ag 22
172 <210> SEQ ID NO: 7

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/518,297D

DATE: 07/07/2006

TIME: 17:17:03

Input Set : A:\54600-8130.US00-SEQLIST.TXT

Output Set: N:\CRF4\07072006\I518297D.raw

```

173 <211> LENGTH: 13
174 <212> TYPE: DNA
175 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: response element
W--> 180 <221> NAME/KEY: misc_feature
181 <222> LOCATION: (3)...(3)
182 <223> OTHER INFORMATION: n = G or T
W--> 184 <221> misc_feature
185 <222> LOCATION: (7)...(7)
186 <223> OTHER INFORMATION: n = A,T,C or G
W--> 188 <221> misc_feature
189 <222> LOCATION: (12)...(12)
190 <223> OTHER INFORMATION: n = A or C
W--> 192 <400> 7
W--> 193 rgntcantga cny
195 <210> SEQ ID NO: 8
197 <400> SEQUENCE: 8
W--> 198 000
200 <210> SEQ ID NO: 9
202 <400> SEQUENCE: 9
W--> 203 000
205 <210> SEQ ID NO: 10
206 <211> LENGTH: 97
207 <212> TYPE: PRT
208 <213> ORGANISM: Artificial Sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: repressor sequence
213 <400> SEQUENCE: 10
214 Met Asp Ala Lys Ser Leu Thr Ala Trp Ser Arg Thr Leu Val Thr Phe
215 1 5 10 15
216 Lys Asp Val Phe Val Asp Phe Thr Arg Glu Glu Trp Lys Leu Leu Asp
217 20 25 30
218 Thr Ala Gln Gln Ile Val Tyr Arg Asn Val Met Leu Glu Asn Tyr Lys
219 35 40 45
220 Asn Leu Val Ser Leu Gly Tyr Gln Leu Thr Lys Pro Asp Val Ile Leu
221 50 55 60
222 Arg Leu Glu Lys Gly Glu Glu Pro Trp Leu Val Glu Arg Glu Ile His
223 65 70 75 80
224 Gln Glu Thr His Pro Asp Ser Glu Thr Ala Phe Glu Ile Lys Ser Ser
225 85 90 95
226 Val
229 <210> SEQ ID NO: 11
230 <211> LENGTH: 36
231 <212> TYPE: PRT
232 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
235 <223> OTHER INFORMATION: repressor sequence
237 <400> SEQUENCE: 11

```

13

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/518,297D

DATE: 07/07/2006

TIME: 17:17:03

Input Set : A:\54600-8130.US00-SEQLIST.TXT

Output Set: N:\CRF4\07072006\I518297D.raw

```

238 Met Ala Ala Ala Val Arg Met Asn Ile Gln Met Leu Leu Glu Ala Ala
239   1           5           10           15
240 Asp Tyr Leu Glu Arg Arg Glu Arg Glu Ala Glu His Gly Tyr Ala Ser
241           20           25           30
242 Met Leu Pro Tyr
243           35
245 <210> SEQ ID NO: 12
246 <211> LENGTH: 116
247 <212> TYPE: DNA
248 <213> ORGANISM: Escherichia coli
250 <220> FEATURE:
251 <221> NAME/KEY: misc_feature
252 <222> LOCATION: (0)...(0)
253 <223> OTHER INFORMATION: partial promoter sequence
255 <400> SEQUENCE: 12
256 cgcggtcaga aaattatttt aaatttcctc ttgtcaggcc ggaataactc cctataatgc      60
257 gccaccactg acacggaaca acggcaaaca cgccgccggg tcagcggggg tctcct      116
259 <210> SEQ ID NO: 13
260 <211> LENGTH: 22
261 <212> TYPE: DNA
262 <213> ORGANISM: Escherichia coli
264 <220> FEATURE:
265 <221> NAME/KEY: misc_feature
266 <222> LOCATION: (0)...(0)
267 <223> OTHER INFORMATION: partial promoter sequence
269 <400> SEQUENCE: 13
270 agaaaattat tttaaatttc ct      22
272 <210> SEQ ID NO: 14
273 <211> LENGTH: 22
274 <212> TYPE: DNA
275 <213> ORGANISM: Artificial Sequence
277 <220> FEATURE:
278 <223> OTHER INFORMATION: modified promoter sequence
280 <400> SEQUENCE: 14
281 gactgcagtg gtacctagga gg      22
283 <210> SEQ ID NO: 15
284 <211> LENGTH: 22
285 <212> TYPE: DNA
286 <213> ORGANISM: Artificial Sequence
288 <220> FEATURE:
289 <223> OTHER INFORMATION: modified promoter sequence
291 <400> SEQUENCE: 15
292 agaaaattat tttaaatttc ct      22
294 <210> SEQ ID NO: 16
295 <211> LENGTH: 22
296 <212> TYPE: DNA
297 <213> ORGANISM: Artificial Sequence
299 <220> FEATURE:
300 <223> OTHER INFORMATION: modified promoter sequence

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/518,297D

DATE: 07/07/2006  
TIME: 17:17:04

Input Set : A:\54600-8130.US00-SEQLIST.TXT  
Output Set: N:\CRF4\07072006\I518297D.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220>

to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 7,11

Seq#:7; N Pos. 3,7,12

## VERIFICATION SUMMARY

DATE: 07/07/2006

PATENT APPLICATION: US/09/518,297D

TIME: 17:17:04

Input Set : A:\54600-8130.US00-SEQLIST.TXT

Output Set: N:\CRF4\07072006\I518297D.raw

L:61 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:65 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3  
L:66 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:180 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:184 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7  
L:188 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7  
L:192 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7  
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:198 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (8) SEQUENCE:  
L:203 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (9) SEQUENCE:  
L:1206 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (63) SEQUENCE:  
L:1211 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (64) SEQUENCE: